

Making Synch Programs Work on Any Size Dairy

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Reproduction is a major challenge for many dairies. The most common method for measuring reproductive performance is 21-day pregnancy rate. Pregnancy rate is heat detection multiplied by conception rate. A rate of 14 percent could be the result of 35 percent estrus detection and 40 percent conception ($.35 \times .40 = .14$). A study across Minnesota DHIA herds by Steve Stewart, D.V.M., showed a median pregnancy rate of 14 percent. This means if 100 cows are open and eligible to get pregnant, only 14 are pregnant after 21 days.

The Genex Reproductive Profit Manager™ database subset of 110 herds under 300 cows has an average 21-day pregnancy rate of 15.4 percent. In these herds, 45 of 100 cows are still open at 150 days in milk. When we attempt to put costs on open cows, these add up quickly.

One way to increase pregnancy rate is to increase conception. It is difficult to make significant improvements in conception when proper technique is already being followed and cows are reproductively healthy. It is likely in most herds with low pregnancy rates that improvements could be made in getting semen into more cows either through more thorough heat detection or implementation of a timed artificial insemination (A.I.) program.

Many herds that traditionally bred cows from visual observation have implemented some sort of timed A.I. program for their "problem breeders." An increased level of confidence in timed A.I. along with less time available for estrus detection has trended many herds towards a larger percentage of cows being inseminated as the result of a timed A.I. program.

Some dairies, like the Elmer Faust Dairy in Pierz, Minn., have completely done away with estrus detection and implemented a total timed A.I. program. Mary Faust is the herd manager at the farm and is currently milking 55 cows. Previously, Faust had been breeding on mucus discharge and standing heats, however, being in a tiestall barn cows were not able to get outside every day and the breeding quickly fell behind.

In April 2005, Genex Area Program Consultant Dustin Hollermann recommended using a Cosynch + EAZI-BREED™ CIDR® program on a group of cows that weren't getting bred. Faust went ahead with the idea and the results were astonishing.

"The first group we bred came back with a 70 percent conception," noted Faust. "Since then, we have consistently been getting conception rates above 40 percent, even through the hot summer months."

By implementing a total timed A.I. program, only certain days are scheduled for breeding freeing up the time that was previously devoted to estrus detection.

Joe Johnson says switching to a total timed A.I. program is one of the best things he's ever done. Johnson milks about 230 cows in South Haven, Minn., and was previously

spending hours each day observing for heats and breeding. "I used to spend up to two hours a day watching for heats and would breed up to three times a day. We now breed only once a week."

Johnson is enjoying 21-day pregnancy rates in the mid 20s using a Presynch + CIDR protocol, giving the first prostaglandin injection around 30 DIM. "We've tried Ovsynch in the past and had average results. The CIDRs seem to be key."

Prior to starting the 100 percent synchronization protocol, Johnson had been averaging three services per conception; since then, the number has dropped below two.

In order to make a timed A.I. program successful, two things must happen:

1. The program must be simple enough to understand and implement. Put all eligible animals on the list and keep them in the program.
2. The program must be followed correctly; all cows need to get the proper shot at the right time. Good identification and proper shot administration is important.

Faust agrees with these two points - "The only time we struggled with conception was when I missed a shot or forgot to pull a CIDR. If you're going to do group breeding, you have to make sure you stay on the ball and give the shots at the correct times."

Faust also added, "The good thing about my Genex technicians is that if I can't be around to give a shot or CIDR, they will do it for me."

Jerry Capko, another Minnesota dairyman milking 135 cows, noted that one of the harder things for him to do after switching to a 100 percent timed A.I. protocol was to ignore cows that were showing heat.

"When I first started, I would see a cow riding that was in the middle of the program and breed her," Capko said. The results of these 'cherry-picked' breedings came back poor. "Now I just totally ignore any signs of heat (breeding everything according to the protocol)."

Capko started the Cosynch + CIDR program in August 2006. Since then, he has maintained a conception rate of near 40 percent. He is using the program on all of his cows and heifers, breeding a group of 12 to 20 animals every two weeks.

Cosynch, a basic timed A.I. program, can be implemented on any open cow eligible for breeding. The amount of time between shots is important. The starting day of the week can be adjusted on each operation. An example would be:

1. Day 0 (Tuesday a.m.) GnRH open animals during vet check and fresh cows that are ready to be inseminated.
2. Day 7 (Tuesday a.m.) Prostaglandin is given to animals from the previous week.
3. Day 9 (Thursday p.m.) Give GnRH and breed 48 to 72 hours after prostaglandin.
4. Day 42 (Tuesday a.m.) Cows confirmed open start over on "Day 0." They are 33 days since breeding.

If this protocol is followed, open animals are re-bred every 42 days. A new group can be started at Day 0 whenever the group is diagnosed as open. If you are conducting pregnancy checks every 14 days, you should have three different groups of cows in different stages of the program, all 14 days apart.

A few modifications can be implemented:

1. CIDRs can be put in at Day 0 and removed at Day 7 on heifers. They can also be used on cows, particularly on problem breeders.
2. For better conception results on first service animals, prostaglandin can be given 10 to 14 days before the program is started.
3. If pregnancy diagnosis is conducted at 40 days, GnRH can be given a week earlier and prostaglandin given at vet check to those diagnosed open.

These and other modifications should be discussed with your veterinarian and/or your Genex representative.

If implemented properly this program should result in an increased service rate with little or no decrease in conception rate. This equates to improved 21-day pregnancy rates and most important, more pregnant cows. It may not be for everyone, but if you find yourself unable to devote enough time for proper estrus detection or simply are unable to catch enough cows eligible to breed then this program should be considered.

For more information on how to make this work for your operation, contact your Genex representative.

Author Bios

Ron Visser is a graduate of the University of Minnesota. He has experience as a dairy herdsman and as a member of the Genex dairy genetics and marketing staffs. Visser currently serves as a BPS Team Leader working with herds in eastern South Dakota, southwest Minnesota and northeast Nebraska.

Ross Leix grew up on a large dairy in southern Wisconsin. He attended the University of Wisconsin-Platteville where he studied animal science. As a Genex Training Programs Manager, Leix conducts reproductive educational programs as well as trains Genex employees and producers who breed their own cows.